SITE: Barite Hill
BREAK: 2.9
OTHER:

U.S. ENVIRONMENTAL PROTECTION AGENCY
$250,000 EMERGENCY AMENDED ACTION MEMORANDUM
INITIAL POLREP

2 9 0005

Date: April 4, 2007

Subject: **AMENDED NOTIFICATION OF $250,000 ACTIVATION**
INITIAL POLREP
Barite Hill Nevada Goldfields Site
McCormick, McCormick County, South Carolina

From: Leo Francendese, Federal On-Scene Coordinator
U.S. Environmental Protection Agency, Region 4

To: Regional Response Center, 4WD-ERRB
South Carolina Department of Health and Environmental Control
Lisa Boynton, EPA-HQ, Regional Coordinator
Shane Hitchcock, ERRB
Jim McGuire, ERRB
Jeff Crowley, Tel Duty OSC
Site File

Site No: A4NZ
ERNS No: NRC#830526
NPL Status: Non-NPL
Response Authority: CERCLA
Start Date: March 28, 2007

Task Order: 0204-F4-0071
PO Amount: $50,000
Contractor: CMC, Inc.
State Notification: October 19, 2006
Completion Date: TBD

I. INTRODUCTIO

On March 27, 2007, a Federal On-Scene Coordinator (OSC) with the Emergency Response and Removal Branch (ERRB), U.S. EPA Region 4, was conducting an assessment of the subject site, which is an abandoned gold mine. The OSC identified several abandoned drums of acids, another abandoned drum labeled methyl ethyl ketone (MEK), a CERCLA hazardous substance as well as several bags of caustic soda and a large mixing tank with caustic solution. The drums are located both in and outside an on-site warehouse which shows signs of trespassing. The site has no security features and public access is unimpeded. The site is also continuously releasing acid water (pH of 2 which classifies as RCRA Hazardous Waste under D001 Corrosivity) from an open pit of approximately 10 acres and estimated to contain up to 100 million gallons of water. This acidic water travels along a tributary which reaches Hawes Creek. Access to the pit is unimpeded to trespassers and signs of trespassing have been noted by both the State and the USEPA.

The OSC contacted the Telephone Duty Officer, also an FOSC, to request ERRS assistance. Pursuant to EPA Region 4 Delegation 14-2 response authority, a FOSC

holding a Warrant is delegated the authority to obligate CERCLA funding in the amount of $250,000 to initiate a removal action in cases where site conditions constitute and emergency. Considering site conditions, the Duty Officer approved the use of CERCLA funds to mitigate the threat posed by the site.

II. SITE ACTIONS

On March 28th, the ERRS contractors arrived on the site and prepped the Main Pit access road for trafficking heavy equipment as well as establishing work zones in and around the abandoned warehouse.

By March 29th, both the Emergency Response Team (ERT) and the Bureau of Land Reclamation (BLR) completed debriefings of additional findings to the OSC. Updated assessments by ERT included the identification of the MEK drum as rusted water. The OSC observed volume calculations were as follows:

- 900 pounds of dry caustic soda
- 40 gallons of a strong acid
- 110 gallons of acid
- 110 gallons of Sodium Hydroxide
- residual caustic soda from the demolition of plastic AST

In addition, the BLR team leader, as part of the group of mining process experts brought on to conduct an inventory of the site which was part of the assessment, identified the venting system in the furnace building as a probable source of metals oxides dust with the potential to have concentrations that trigger acute exposure scenarios. Based on historical evaluations of vent systems in furnace rooms, acute concentrations of metals oxides are commonly found. The venting system included a fume hood for assay, a melting furnace vent system, an unknown venting system and a smaller melting oven. The building was without barrier with its vent systems easily accessible to trespassers. The oven was found immediately adjacent to the building opening sitting in the elements. The BLR team is an experienced group with a combined 45 years of mining experience. They are commonly used to conduct mining assessments throughout the United States.

The OSC and the response manager for the contractor both experienced metallic taste sensations when initially evaluating the open side of the furnace building. In addition, the saturated flooring indicated that the roof had been leaking which provided an additional physical transport mechanism for the metals to reach the floor, further endangering a trespasser and providing a source for additional runoff to the downgradient receiving stream. The subsequent operation to execute the work was done in level B self contained breathing apparatus (SCBA) with concurrent engineering controls of watered down dust suppression. Upon arrival March 31st, the contractor environmental expert also noted taste sensations. The OSC expanded the emergency action to include the removal of the venting system and if necessary, demolish the structure.

In consultation and concurrence with the State, all reactive chemicals discussed above were neutralized in the Main Pit. It became necessary to demolish the furnace building (approximately 50 x 50 x 25 foot concrete structure) in order to remove the venting system. The structure and venting system was disposed of in the Main Pit in consultation and concurrence with the State. These actions were completed by March 31st.

In coordination with the State, the OSC tasked the CIC, Sherryl Carbanaro to issue a joint community notification thru the local McCormick newspaper on March 28th. In addition, jointly agreed upon language was created for the up to 30 warning signs to be posted around the Site. Signpost placement was completed on the March 31st. Signs were ordered and will be erected to those posts by April 6th. The CIC and State conducted initial door to door neighborhood updates on Thursday the 29th with limited success. Plans were made to complete the neighborhood door to door updates on the 4th of April. An updated fact sheet has been completed in coordination with the State.

III. BACKGROUND

The Barite Hill Nevada Goldfields site is located approximately 3 miles south of McCormick, SC between US 378 and US 221 on the northern side of Road 30 in McCormick County, SC. The mine site is relatively remote; there are no buildings, homes, or commercial buildings within 0.5 miles of the boundary. The site actively mined gold from 1991 to 1995. From 1995 until Nevada Goldfields filed for Chapter 7 Bankruptcy in 1999, the reclamation of the site was being addressed by Nevada Goldfields. On July 7, 1999 Nevada Goldfields abandoned the facility and transferred Site control South Carolina Department of Health and Environmental Control (DHEC).

The facility used a cyanide solution in a heap leach process to extract gold from ore. There are 7 processing ponds onsite containing an unknown amount of free-liquids. Three large, multi-acre, waste rock piles contaminated with cyanide are left onsite. Each waste rock pile has the potential for producing acid. Storm water run on and runoff are not controlled at the site. The Main Pit from the mining operations remains. The pit contains approximately 100 million gallons of water with a pH of 2 ~ 2.2 and a high dissolved metal content. Seeps from the main pit containing acidic water with high dissolved metal content are being released to the northern unnamed tributaries of Hawes Creek which borders the pit.

The Site was referred to ERRB October 19, 2006, for consideration as a possible removal ~~site. ERRB is currently conducting the removal assessment at the Site. The release from~~ the stored drums onsite was discovered March 27, 2007, necessitating an Emergency Response action.

IV. THREAT

Section 300.415 of the National Contingency Plan (NCP) lists a number of factors to be evaluated in determining the appropriateness of a removal action. The following paragraphs apply to the Barite Hill Nevada Goldfields Site:

§300.415(b)(2)(i). "Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances or pollutants or contaminants."

There are abandoned drums that contain hazardous substances, pollutants or contaminants located on the Site. These drums are located in an unsecured warehouse which allows for public access. There is no fence or any other engineering controls on the Site which would prevent humans from entering the Site and potentially being exposed to hazardous substances. The hazardous substances also have a mechanism to reach Hawes Creek, a surface water body of the United States.

In addition, the furnace building has a venting system that is likely to contain metals oxide dusts with the potential to trigger acute health exposure scenarios. The building is unsecure, accessible to the public and already open to the elements.

§300.425(b)(2)(iii). "Hazardous Substances or pollutants or contaminants in drums, barrel, tanks, or other bulk storage containers, that may pose a threat of release."

There are unsecured, abandoned drums containing hazardous substances, pollutants or contaminants on the site. The integrity of these drums is questionable and poses a threat of release. In addition, trespassers or vandals could access the site and cause a release by tampering with the drums.

§300.415(b)(2)(vii). "The availability of other appropriate Federal or State response mechanisms to respond to the release."

At this time there exist no additional State mechanisms that are able to respond to this incident in the required manner. EPA initially assumed cleanup activities at the Site through a State referral.

V. PLANNED REMOVAL ACTIVITIES

Anticipated immediate removal activities for the Site include, but are not limited to, the following:

- Emergency stabilization of drums which may be leaking or have questionable integrity;
- Moving drums to a secured location on site to reduce the potential of a release or exposure to the hazardous chemicals;
- Sampling of drums for hazard categorization to determine the specific nature of contents of the drums, if necessary;
- Removal and disposal of furnace venting system including the structure if necessary;
- Provide public warning via signage or other methods to deter public access to the Site.

VI. BUDGET

The total Site ceiling for this emergency action is $250,000. The budget has been structured as appears below. Changes in the structure may be made by the OSC at his/her discretion.

ERRS	100,000
ERT	50,000
Contingency	100,000
TOTAL	**250,000**[1]

[1] *Direct Costs include direct extramural costs and direct intramural costs. Indirect costs are calculated based on estimated indirect cost rate expressed as a percentage of site-specific direct costs, consistent with the full cost accounting methodology effective October 2, 2000. These estimates do not include pre-judgment interest, do not take into account other enforcement costs, including Department of Justice costs, and may be adjusted during the course of a removal action. The estimates are for illustrative purposes only and their use is not intended to create any rights for responsible parties. Neither the lack of a total cost estimate nor deviation of actual total costs from this estimate will affect the United States' right to cost recovery.*